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10/804,334	03/18/2004	Kenji Takahashi	1232-5348	7027

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EXAMINER
KHAN, USMAN A

ART UNIT	PAPER NUMBER
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/804,334	TAKAHASHI, KENJI
	Examiner	Art Unit
	Usman Khan	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 5/8/2006 and

8/11/2004 have been considered by the examiner. The submissions are in compliance

with the provisions of 37 CFR 1.97.

Specification

The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Drawings

Figure 14 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 17 - 18 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter as follows. Claims 17 - 18 define a storage

medium and a program, respectively embodying functional descriptive material.

However, the claims do not define a computer-readable medium and are thus non-

statutory for that reason (i.e., "When functional descriptive material is recorded on some

computer-readable medium it becomes structurally and functionally interrelated to the

medium and will be statutory in most cases since use of technology permits the function

of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of

the presently claimed program and storage medium respectively can range from paper

on which the program and storage medium respectively is written, to a program simply

contemplated and memorized by a person.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The claim is unclear as to what the applicant is claiming when

stating "further decompressing a plurality of types for decompressing the digital image

data described in the file". Note: for faster prosecution from now on, in this office action,

the claim will be treated as being any image format included in the image file for

decompressing. This might change upon applicant's response to this office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3 – 5, 13, 15, and 17 – 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakami (EP 1 271 404 A2).

Regarding **claim 1**, Nakami teaches an information processing method for processing a file (paragraphs 0008 *et seq.*) containing reversibly compressed or non-compressed digital image data obtained by digitally converting a signal that has been output from an image sensing device (paragraph 0037), said method including process of: converting the digital image data contained in the file to data having a prescribed format by selectively executing a signal processing of a plurality of types by using any of at least a plurality of types of luminance signal generating processing methods and/or a plurality of types of color signal generating processing methods (paragraphs 0008 – 0009 and 0036 – 0043 brightness, color information, gamma value, and other image processing); selecting automatically signal processing to be used from among the plurality of types of signal processing based upon information contained in the file (paragraphs 0008 – 0009 and 0036 – 0043 Exif file with image data and processing control data stored in file stored and figure 6); and causing said conversion to be executed using the signal processing selected in the selecting process so that the digital image data contained in the file is converted to data having the prescribed format (paragraphs 0008 – 0009 and 0036 – 0043 signal processing is executed depending on the image file data).

Regarding **claim 3**, as mentioned above in the discussion of claim 1, Nakami teaches all of the limitations of the parent claim. Additionally, Nakami teaches further teaches decompressing a plurality of types for decompressing the digital image data described in the file (paragraph 0042 JPEG and TIFF); wherein in the selecting process, decompression processing, which is used in said decompressing, is selected based upon information contained in the file (paragraph 0042 JPEG and TIFF).

Regarding **claim 4**, as mentioned above in the discussion of claim 1, Nakami teaches all of the limitations of the parent claim. Additionally, Nakami teaches that the signal processing is executed in the converting process using an image processing parameter set by a user (Abstract paragraphs 0006, 0009, 0028, 0030 and 0048 *et seq.* users inputted parameters).

Regarding **claim 5**, as mentioned above in the discussion of claim 1, Nakami teaches all of the limitations of the parent claim. Additionally, Nakami teaches that in the selecting process, the signal processing to be used is selected, <u>based upon at least any of</u> product information specifying an apparatus that is the source of generation of the file, color-filter information specifying a color filter used by an image sensing device in the apparatus that is the source of generation of the file, and an extension-of the file (paragraph 0040 shooting conditions).

Regarding **claim 13**, Nakami teaches an information processing apparatus for

processing a file (paragraphs 0008 *et seq.*) containing reversibly compressed <u>or</u> non-

compressed digital image data (paragraph 0037) obtained by digitally converting a

signal that has been output from an image sensing device, said apparatus comprising: a

conversion part which converts reversibly compressed <u>or</u> non-compressed digital image

data contained in the file (paragraph 0037), which is obtained by digitally converting a

signal that has been output from the image sensing device(paragraph 0007 *et seq.*), to

data having a prescribed format, by selectively executing signal processing of a plurality

of types by <u>using any of at least</u> a plurality of types of luminance signal generating

processing methods <u>and/or</u> a plurality of types of color signal generating processing

methods (paragraphs 0008 – 0009 and 0036 – 0043 brightness, color information,

gamma value, and other image processing); a selection part which selects conversion

processing to be used from among the plurality of types of signal processing based

upon information contained in the file (paragraphs 0008 – 0009 and 0036 – 0043 Exif

file with image data and processing control data stored in file stored and figure 6); and

an execution part which actuates said conversion part using the conversion processing

selected by said selection part so that the digital image data contained in the file is

converted to data having the prescribed format (paragraphs 0008 – 0009 and 0036 –

0043 signal processing is executed depending on the image file data).

Regarding **claim 15**, as mentioned above in the discussion of claim 13, Nakami

in further view of examiners official notice teaches all of the limitations of the parent

claim. Additionally, Nakami teaches that the conversion part executes signal processing using an image processing parameter set by a user (Abstract paragraphs 0006, 0009, 0028, 0030 and 0048 *et seq.* users inputted parameters).

Regarding **claim 17**, Nakami teaches a storage medium storing a control program for implementing (paragraph 0034), by computer, the information processing method set forth in claim 1 (see discussion of claim 1 above).

Regarding **claim 18**, Nakami teaches a control program for implementing (paragraph 0034), by computer, the information processing method set forth in claim 1 (see discussion of claim 1 above).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 5, 8, - 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakami (EP 1 271 404 A2) in further view of Examiners Official Notice.

Regarding **2**, as mentioned above in the discussion of claim 1 Nakami teach all of the limitations of the parent claim.

However, Nakami fails to teach that the selecting process includes selecting process for emphasizing high frequency of a luminance signal in the luminance signal generating process.

The examiner takes Official Notice that it is old and well known in the art to use high frequency of a luminance signal in the luminance signal generating process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use high frequency of a luminance signal in the luminance signal generating process since edges, lines, and textures are composed of high frequencies, their appearance is influenced mainly by the luminance component so high frequency of a luminance signal in the luminance signal generating process is used to improve image quality and improve image quality at edges in the image.

Regarding 5, as mentioned above in the discussion of claim 1 Nakami teach all of the limitations of the parent claim.

However, Nakami fails to teach that in the selecting process, the signal processing to be used is selected, based upon an extension-of the file.

The examiner takes Official Notice that it is old and well known in the art to use file extension such as .JPEG or .BMP as a means for deciding what type of processing is needed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for

deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Regarding **claim 8**, Nakami teaches an information processing method for processing a file (paragraphs 0008 *et seq.*) containing reversibly compressed or non-compressed digital image data obtained by digitally converting a signal that has been output from an image sensing device (paragraph 0037), and converting the data to data having a prescribed format (paragraphs 0008 – 0009 and 0036 – 0043), the method including process of: executing signal processing upon changing over a plurality of types of luminance signal generating processing methods and/or a plurality of types of color signal generating processing methods prepared in advance (paragraphs 0008 – 0009 and 0036 – 0043 brightness, color information, gamma value, and other image processing); and converting the digital image data contained in the file to data having the prescribed format by changing over signal process (paragraphs 0008 – 0009 and 0036 – 0043 Exif file with image data and processing control data stored in file stored and figure 6), which is used in the executing process (paragraphs 0008 – 0009 and 0036 – 0043 signal processing is executed depending on the image file data).

However, Nakami fails to teach that in the selecting process, the executing process is based upon an extension of a file to be processed.

The examiner takes Official Notice that it is old and well known in the art to use file extension such as .JPEG or .BMP as a means for deciding what type of processing is needed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Regarding **claim 9**, as mentioned above in the discussion of claim 8, Nakami in further view of examiners official notice teaches all of the limitations of the parent claim.

However, Nakami fails to teach that in the selecting changing over a compressed-file decompression processing method in accordance with the extension.

The examiner takes Official Notice that it is old and well known in the art to use file extension such as .JPEG or .BMP as a means for deciding what type of processing is needed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Regarding **claim 10**, as mentioned above in the discussion of claim 8, Nakami in further view of examiners official notice teaches all of the limitations of the parent claim. Additionally, Nakami teaches that use is made of a table for changing over the signal processing (paragraph 0081) in accordance with the extension (The Official Notice of claim 8 of the limitation of well known in the art of using file extension such as .JPEG or

.BMP as a means for deciding what type of processing is needed with the teachings of the LUT of Nakami for processing).

Regarding **claim 11**, as mentioned above in the discussion of claim 8, Nakami in further view of examiners official notice teaches all of the limitations of the parent claim. Additionally, Nakami teaches that the signal processing is changed over upon referring to tag information that has been correlated with the digital image data (figure 6 item 103 MakerNote).

However, Nakami fails to teach that the signal processing being changed over in accordance with the extension.

The examiner takes Official Notice that it is old and well known in the art to have the signal processing being changed over in accordance with the extension.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Regarding **claim 12**, as mentioned above in the discussion of claim 8, Nakami in further view of examiners official notice teaches all of the limitations of the parent claim. Additionally, Nakami teaches that the signal processing is executed at converting process using an image processing parameter set by a user (Abstract paragraphs 0006, 0009, 0028, 0030 and 0048 *et seq.* users inputted parameters).

Regarding **claim 14**, as mentioned above in the discussion of claim 13, Nakami in teaches all of the limitations of the parent claim. Additionally, Nakami teaches that the conversion processing is changed over upon referring to tag information that has been correlated with the digital image data (figure 6 item 103 MakerNote).

However, Nakami fails to teach that the signal processing being changed over in accordance with the extension.

The examiner takes Official Notice that it is old and well known in the art to have the signal processing being changed over in accordance with the extension.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Regarding **claim 16**, Nakami teaches an information processing apparatus for processing a file (paragraphs 0008 *et seq.*) containing reversibly compressed <u>or</u> non-compressed digital image data obtained by digitally converting a signal that has been output from an image sensing device (paragraph 0037), and converting the data to data having a prescribed format (paragraphs 0008 – 0009 and 0036 – 0043), comprising: a processing part which executes signal processing upon changing over a plurality of types of luminance signal generating processing methods <u>and/or</u> a plurality of types of color signal generating processing methods prepared in advance (paragraphs 0008 –

0009 and 0036 – 0043 brightness, color information, gamma value, and other image processing); and a conversion part which changes over signal processing v (paragraphs 0008 – 0009 and 0036 – 0043 Exif file with image data and processing control data stored in file stored and figure 6), which is used by said processing part (paragraphs 0008 – 0009 and 0036 – 0043 signal processing is executed depending on the image file data), and converting the digital image data contained in the file to data having the prescribed format (paragraph 0037).

However, Nakami fails to teach that in the converting part, the executing is based upon an extension of a file to be processed.

The examiner takes Official Notice that it is old and well known in the art to use file extension such as .JPEG or .BMP as a means for deciding what type of processing is needed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the file extension information as a means for deciding what type of processing is compatible with the image such as in moving, still, hi regulation, and low regulation images.

Claims 6 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakami (EP 1 271 404 A2) in further view of Kohashi et al. (US patent No. 6,816,193).

Regarding **6**, as mentioned above in the discussion of claim 1 Nakami teach all of the limitations of the parent claim.

However, Nakami fails to teach wherein signal processing of the plurality of types in the converting process includes first process for generating a luminance signal using color signals of all colors included in the digital image data, and second processing for generating a luminance signal using a color signal of a specific color included in the digital image data; and in the selecting process, either the first processing or the second processing is selected.

Kohashi et al., on the other hand discloses using a luminance for all the colors and/or the luminance of a specific color is well known in the art.

More specifically, Kohashi et al. discloses using a luminance for all the colors and/or the luminance of a specific color is well known in the art as discussed in column 1 lines 11 - 23.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kohashi et al. with the teachings of Nakami because in column 1 lines 11 - 23 Kohashi et al. teaches that using this method will produce an edge enhanced image.

Regarding **7**, as mentioned above in the discussion of claim 1 Nakami teach all of the limitations of the parent claim.

However, Nakami fails to teach wherein signal processing of the plurality of types in the converting process includes high-frequency emphasis processing for causing a high-frequency emphasis signal to act upon a luminance signal that has been obtained by conversion from the digital image data, said high-frequency emphasis signal being

obtained by either first processing for generating a high-frequency emphasis signal using color signals of all colors included in the digital image data, or second processing for generating a high-frequency emphasis signal using a color signal of a specific color included in the digital image data; and in the selecting process, either the first processing or the second processing is selected.

Kohashi et al., on the other hand discloses using a luminance for all the colors and/or the luminance of a specific color is well known in the art for use in high-frequency emphasis signal.

More specifically, Kohashi et al. discloses using a luminance for all the colors and/or the luminance of a specific color for high frequency components is well known in the art as discussed in column 1 lines 11 - 23.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kohashi et al. with the teachings of Nakami because in column 1 lines 11 - 23 Kohashi et al. teaches that using this method will produce an edge enhanced image.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Imai (US patent No. 7,200,265) teaches using a single luminance color.

Adams et al. (US patent No. 6,873,341) teaches using a single luminance color.

Silverbrook et al. (US patent No. 5,845,010) teaches using a single luminance color.

Iizuka et al. (US patent No. 6,657,655) teaches image processing with data conversion using an image file with embedded data.

Ide et al. (US patent No. 6,819,360) teaches image processing with data conversion using an image file with embedded data.

Watanabe (US patent No. 5,528,293) teaches image processing with data conversion using an image file with embedded data.

Iizuka et al. (US PgPub 2002/0054207) teaches image processing with data conversion using an image file with embedded data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usman Khan whose telephone number is (571) 270-1131. The examiner can normally be reached on Mon-Thru 6:45-4:15; Fri 6:45-3:15 or Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Usman Khan
05/25/2007
Patent Examiner
Art Unit 2622

DAVID OMETZ
SUPERVISORY PATENT EXAMINER